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THE AGRICULTURAL SITUATION

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A Brief Summary of Economic Conditions

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IN THIS ISSUE

	Page
Facts on Food are Essential.....	Clinton P. Anderson 2
Commodity Reviews.....	2
Farm Income During the War.....	Selma F. Goldsmith 9
Transportation Most Critical of War.....	Edgar B. Black and J. C. Winter 12
Lumber for Farm Construction.....	Frank J. Hallauer 14
Seasonality of Wartime Milk Production.....	John L. Wilson 17
Surplus Medical Equipment for Rural Areas.....	Gus Larson 20
Trends in Grape Production and Utilization, Cary D. Palmer and E. O. Schlotzhauer	21

WITH total civilian, military and export demand for American food about one-half greater than the 1935-39 prewar average while 1945 food production is now expected to be only one-third above prewar, the basic food problem in the months ahead is one of achieving an equitable distribution of an increased output to meet an even greater demand. * * * Despite the most critical transportation situation of the war, especially in the West, the importance of food and other farm products means that the marketing of agricultural commodities will receive top consideration in the use of available transportation facilities. * * * Realized net income of farm operators from agriculture in 1944 was 11.9 billion dollars, without Government payments, only a 0.2-billion dollar increase over 1943 compared with a 3-billion dollar increase in each of the two previous years. * * * The final 1946 wheat goal of 68.9 million acres and the rye goal of 2.6 million acres, about the same as the planted acreage this season, point to a continuation of the present high level of agricultural production in 1946. * * * Prices received and prices paid by farmers were both at the highest July levels since the period just after World War I.

FACTS ON FOOD ARE ESSENTIAL

Secretary's Message to Crop Reporters

THIS may be the most critical food year of the war. Civilian shortages of meat, butter, sugar, and certain other foods in this country, together with increased military and foreign relief needs since victory in Europe, make American food production more important than ever before. And just as important are the facts on the production of food—so essential to its most effective use.

Farmers, merchants, warehousemen, processors, and others connected with the production, processing, and distribution of food and other farm products are doing a magnificent job despite critical shortages of manpower, machinery, and materials. And among these patriotic Americans who are performing such miracles of production are the thousands of men and women who are rendering a very important additional service.

They are the volunteer crop, livestock, and price reporters who regularly make available facts on production and prices in their areas. Without these essential facts the programs for producing food, feed, fiber, and oil crops could not be successfully planned and carried out.

As your new Secretary of Agriculture, I take this opportunity to greet you crop reporters. This year we need more information earlier than ever before. We have transportation problems that cannot be met unless we know when and where farm produce will pile up. You, as crop reporters, are on the firing line today as the country searches for every crumb of food with which to care for our needs. You have your greatest chance to help in the war effort. Good luck to you.

CLINTON P. ANDERSON
Secretary of Agriculture

Commodity Reviews

• FOOD PRODUCTION

TOTAL civilian, military, and export demand for American food is now one-half greater than the over-all demand during 1935-39, while aggregate food production in 1945 will be about one-third greater than before the war, though about 4 percent below 1944. Thus the basic food problem in

1945 is one of achieving the most equitable distribution of an increased output to meet an even greater demand.

Food from livestock production for this year may be about 5 percent less than last year though 34 percent above 1935-39. Output of livestock products will be lower in the second half of 1945 than it was in the first half, and

present prospects do not point to much improvement in the first half of 1946. On the basis of July 1 conditions, food from crop production this year will be slightly less than it was last year, but about 28 percent above prewar, 1935-39.

Prospective food supplies for civilians in 1945 indicate civilian per capita food consumption will be 5 percent below the all-time record of last year, but 5 percent above the 1935-39 average. Distribution of total civilian supplies will be quite different from that of the prewar period when many people were financially unable to buy some foods they wanted which meant that those with higher incomes usually had a wide selection. Now, higher war incomes mean the selection, which is limited by war takings, is being divided among a great many more people. In addition, available supplies tend to stay close to the areas where produced as long as the demand con-

tinues strong in those areas. Thus supplies for many urban areas are reduced disproportionately.

Even though the selection may not be as wide as last year or before the war—for some people—over-all civilian food consumption in the months ahead will continue well above the prewar level of nutrition. Supplies of most grain products, fluid milk, skim milk products, canned fruit juices, many fresh vegetables and fruits, and fresh fish will be fairly plentiful. Of course, certain foods will continue short of the extremely high level of demand. Some of these are: Meats, fats and oils, sugar, cheese, condensed and evaporated milk, poultry, eggs, and canned fruits and vegetables. In addition, rice, dry beans, apples, and some processed foods using large amounts of sugar or fats and oils may become short of the high demand.

Total supplies of sugar and eggs will be smaller in the second half of 1945 than in the first half, but civilians are expected to get more eggs next year. The large quantities of rice and of canned fish, fruits and vegetables needed by the armed forces in the Pacific will reduce civilian takings, this fall and winter, below a year earlier.

Present estimates of the distribution of the total food supply in 1945 shape up about as follows: 77 percent to United States civilians compared with 80 percent in 1944, 17 percent to the armed forces including relief feeding by the military compared with 13 percent last year, and 6 percent for lend-lease and other exports compared with 7 percent last year.

SUGAR

DOMESTIC sugar production this year is now expected to be nearly one-half million tons larger than last year, totaling perhaps 1.9 million short tons (raw basis). Sugar-beet production is indicated to be nearly one-third above 1944, but 7½ percent

Food Production, 1944 and 1945

Food group or item	1944	Pre-limi-nary 1945 ¹	1945 as percent of 1944
Red meat (dressed weight).....	24,648	22,700	Percent 92
Turkey and chicken meat (dressed weight).....	4,007	3,900	97
Eggs ²	5,305	4,885	92
Total milk production on farms.....	118,504	121,000	102
Fluid milk and cream.....	56,144	57,449	102
Cheese.....	1,009	1,100	109
Butter.....	1,816	1,740	96
Lard.....	2,951	2,140	73
Margarine.....	479	504	105
Shortening and other edible fats and oils.....	2,487	2,407	97
Fresh fruit.....	19,329	17,745	92
Processed fruit ³	10,881	10,970	101
Potatoes.....	386	405	105
Sweet potatoes.....	72	64	89
Dry beans.....	1,502	1,400	93
Fresh vegetables.....	34,224	34,466	101
Processed vegetables ⁴	11,136	11,235	101
Wheat ⁵	1,079	1,129	105
Rice ⁵	70	75	107

¹ Preliminary estimate based on July crop report, latest livestock reports, and other recent information.

² Million dozen.

³ Fresh weight equivalent.

⁴ Dehydrated vegetables not included.

⁵ Million bushels.

NOTE.—All figures are production estimates, not civilian supply estimates.

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid, interest, and taxes	Parity ratio ¹
1935-39 average....	107	128	84
1940.....	100	125	80
1941.....	124	132	94
1942.....	159	150	106
1943.....	192	162	119
1944.....	195	170	115
1944			
July.....	192	170	113
August.....	193	170	114
September.....	192	170	113
October.....	194	170	114
November.....	196	171	115
December.....	200	171	117
1945			
January.....	201	172	117
February.....	199	172	116
March.....	198	173	114
April.....	203	173	117
May.....	200	173	116
June.....	206	173	119
July.....	206	173	119

¹ Ratio of prices received by farmers to prices paid, interest, and taxes.

below the 1934-43 average. On the other hand, production of sugarcane in Louisiana and Florida is expected to be only 11 percent above last year, though 21 percent above the 10-year average. Prospective 1945 yields of both cane and beets are well above average and acreages are larger than in 1944.

In spite of prospective increases in mainland production this year, the supply of sugar available to civilians will remain very short for the remainder of 1945. Only a small proportion of the 1945 crop will reach consumers before 1946. But, despite a considerably smaller quantity of sugar available for consumption in all of 1945, the rate of use in the first half of this year was slightly higher than in the first half of 1944. Consequently, the total decrease in consumption for the year must all come in the July-December period. This is especially difficult because civilian sugar consumption normally is about 10 percent larger in the second half of the year than in the first half.

The shortage of sugar is the result of the complete loss of sugar supplies from the Philippine Islands and Java, greatly reduced production in Europe, and a small crop in Cuba in 1944-45. In prewar years the United States imported nearly 1 million tons of sugar annually from the Philippines. Java usually exported a little more than 1 million tons a year to various countries some of which came to this country but is now going elsewhere. Cuba produced only 3.9 million tons of sugar in 1945 compared with 5.6 million tons in 1944. Furthermore, 900,000 tons of the 1944 output were used to make invert molasses for producing badly needed industrial alcohol for war purposes.

World sugar stocks have been reduced to a low level. It will probably be several years before important producing areas such as Europe, Philippine Islands, and Java recover sufficiently from the effects of war to regain something like their prewar output. Until that time, sugar is likely to remain in short supply in the United States.

FATS AND OILS

THE OIL equivalent of the total 1945 planted acreage in cotton, soybeans, flaxseed, and peanuts—assuming average yields per acre—is now expected to be the same as in 1944.

This year's oilseed planted acreage of nearly 40 million acres is about 1 million acres below 1944. But, in oil equivalent, the 2 million acre reduction in cotton plus slight reductions in soybean and peanut acreage are offset by the 1-million-acre increase in flaxseed.

Cotton acreage in cultivation on July 1 was estimated at 18.4 million acres compared with 20.4 million a year earlier. Peanuts grown alone for all purposes at 3.9 million acres and soybeans grown alone for all pur-

poses at 13.3 million acres are both about the same as the 1944 planted acreage. This year's planted flaxseed acreage, however, is 4.1 acres compared with 3.1 million in 1944. Such a flaxseed acreage is expected to produce 32.7 million bushels, nearly a third more than the 23.5-million-bushel output in 1944.

Ceiling and support prices for cottonseed, peanuts, and soybeans produced this year will be about the same as last year. In the case of flaxseed, despite no change in other terminal markets, the ceiling prices in California terminal markets have been increased 5 cents a bushel, to \$3.35. Minneapolis ceiling price continues at \$3.10 per bushel. Thus farmers in the main producing areas will receive about the same price as last year for comparable grades.

However, all farmers who fulfilled their individual flaxseed acreage goals will receive \$5 for each acre planted up to the goal—a bonus not in effect last year.

TOBACCO

WITH prospective yields higher than for most years prior to 1944, favorable weather during the remainder of the growing season might result in a flue-cured and burley tobacco crop, the major cigarette types, considerably in excess of the July expectations of 1.64 billion pounds, about the same as last year, and 47 percent above the 10-year (1934-43) average.

Disappearance of leaf tobacco during the past 12 months was the largest in history, and, despite the large 1944 crop, stocks of most types are a little smaller now than a year ago. A slight decrease in stocks is indicated for flue-cured, dark, and cigar tobacco, but substantially larger holdings of burley are expected. The over-all supply of leaf appears adequate to maintain the present level of utilization without any substantial decrease in stocks a year hence. But, in relation to usage, manufacturers are probably holding smaller stocks of properly aged to-

Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

	5-year average		July 15, 1944	June 15, 1945	July 15, 1945	Parity price July 15, 1945
	August 1909- July 1914	January 1935- December 1939				
Wheat (bushel).....dollars..	0.884	0.837	1.39	1.50	1.46	1.53
Rice (bushel).....do....	.813	.742	¹ 1.73	1.76	1.76	1.41
Corn (bushel).....do....	.642	.691	1.17	1.11	1.12	1.11
Oats (bushel).....do....	.399	.340	.764	.674	.659	.690
Hay (ton).....do....	11.87	8.87	13.90	15.90	15.40	20.50
Cotton (pound).....cents..	12.4	10.34	20.82	20.90	21.25	21.45
Soybeans (bushel).....dollars..	² .96	.954	1.91	2.17	2.16	³ 1.66
Peanuts (pound).....cents..	⁴ .8	3.55	7.75	8.23	8.18	8.30
Potatoes (bushel).....dollars..	.697	7.17	¹ 1.39	1.80	1.83	1.25
Apples (bushel).....do....	.96	.90	2.63	2.71	2.95	1.66
Oranges on tree, per box.....	⁴ 1.81	1.11	2.94	2.96	2.90	² 2.03
Hogs (hundredweight).....do....	7.27	8.38	12.70	14.10	14.00	12.60
Beef cattle (hundredweight).....do....	5.42	6.56	¹ 10.90	12.90	12.80	9.38
Veal calves (hundredweight).....do....	6.75	7.80	¹ 12.70	13.80	13.90	11.70
Lambs (hundredweight).....do....	5.88	7.79	¹ 12.60	13.40	13.50	10.20
Butterfat (pound) ⁵.....cents..	26.3	29.1	50.2	50.2	50.2	⁶ 42.5
Milk, wholesale (100-pound) ⁵.....dollars..	1.60	1.81	¹ 3.11	3.04	3.09	⁶ 2.58
Chickens (pound).....cents..	11.4	14.9	24.2	27.5	28.5	19.7
Eggs (dozen).....do....	21.5	21.7	31.2	35.8	37.9	⁶ 35.0
Wool (pounds).....do....	18.3	23.8	¹ 42.9	41.7	41.4	31.7

¹ Revised.

² Comparable base price, August 1909-July 1914.

³ Comparable price computed under sec. 3 (b) Price Control Act.

⁴ Comparable base price, August 1919-July 1929.

⁵ Does not include dairy production payments made directly to farmers by county AAA offices

⁶ Adjusted for seasonality.

bacco now than at any time in recent years.

Over-all consumption of tobacco products, including the military overseas, is continuing at or near the war-time peak. Although Government purchases of cigarettes have been reduced since VE-day, domestic consumption is still restricted by inadequate supplies. Cigarette consumption is expected to continue at a high level during the next year or so. But manufacturers still face major problems in increasing production, and may continue to do so until after the end of the war.

While domestic consumption of cigars has increased only slightly in recent months, there have been substantial increases over a year earlier in chewing tobacco, smoking tobacco, and snuff.

Exports of tobacco from this country have increased substantially in recent months, mainly because of improved shipping. Some tobacco bought in former years and held in storage in this country is being shipped abroad. About 400 million pounds of this year's flue-cured crop have been ear-marked for export, largely to British Empire countries for military use under lend-lease as well as for sale to foreign governments for civilian consumption. Exports during the years immediately following the war may depend largely on foreign trade policies of importing nations together with credit arrangements in effect then.

LIVESTOCK AND FEED

TOTAL number of livestock on farms at the end of 1945, in terms of grain-consuming animal units, probably will not differ greatly from a year earlier. Total cattle numbers are likely to be little changed, while sheep, horse, and mule numbers will be reduced. But hog and chicken numbers probably will be slightly greater.

The quantity of feed concentrates

available for the 1945-46 feeding year, on the basis of July 1 indications, may be only 153 tons, 10 million tons less than in the current season.

The supply of feed grains per animal unit for the 1945-46 feeding year (beginning October) is indicated by July conditions to be 5 to 10 percent smaller than the relatively large supply for the 1944-45 feeding year. On the other hand, the hay supply per animal unit will be 5 to 10 percent larger than in 1944-45, and one of the largest on record. The over-all supply of by-product feeds is expected to be slightly smaller than in 1944-45 on the basis of July indications. High-pro-

Feed Balance, 1938-45, Year Beginning October

Item	1938-42 aver- age	1944 ¹	1945 ¹
	Mil. tons	Mil. tons	Mil. tons
Stocks, beginning crop year ²	20.1	10.7	16.0
SUPPLY			
Feed grain production:			
Corn.....	75.0	90.4	75.2
Oats.....	18.6	18.7	22.7
Barley.....	7.9	6.8	6.1
Sorghum grains.....	2.4	5.1	3.8
Total production.....	103.9	121.0	107.8
Other grains and byproduct feeds for feed.....	23.0	30.1	-----
Total supply.....	147.0	161.8	153.0
UTILIZATION			
Feed grains and other grains fed.....	98.6	111.6	-----
Byproduct feeds fed.....	16.3	19.0	-----
Total concentrates fed.....	114.9	130.6	-----
Feed grains for food, seed, industry and export.....	12.0	15.4	-----
Total utilization.....	126.9	146.0	-----
Total utilization adjusted to crop-year basis.....	126.5	145.8	-----
Stocks, end of crop year ²	20.5	16.0	-----
Number of grain-consuming animal units on the following January 1.....	Mil. 140.3	Mil. 147.0	Mil. 147.0
Supply of all concentrates per animal unit.....	Tons 1.05	Tons 1.10	1.04

¹ Preliminary—subject to change as more data become available.

² Stocks of corn Oct. 1, oats July 1, barley June 1, sorghum stocks, not reported. Includes stocks on farms, at terminal markets, and in CCC bins.

tein feed supplies are expected to be smaller while wheat millfeeds supply may be slightly larger.

A large supply of hay for feeding during the next year promises a continuing high level of beef cattle production in 1945-46. Milk production is likely to continue large also, with a record or near-record number of milk cows in the country and high unit returns to dairy producers.

The reduced supply of feed grain in prospect for the 1945-46 season would allow virtually no expansion in the total production of grain-consuming animals in 1946. Livestock production at about present levels could be obtained, but in so doing stocks of feed grains would be reduced substantially by the time new-crop grain is harvested next year. Present indications are that egg, farm chicken, and turkey production may increase slightly in 1946.

Number of pigs raised will depend largely upon outturn of the corn crop. The 1945 fall pig crop probably will show an increase over a year earlier, but weights of hogs marketed from that crop will be lighter than the record weights of hogs now being marketed.

COTTON

DESPITE the lowering of the Government loan rate to 92½ percent of parity as compared with 95 percent of parity last year, the actual loan rate on Middling 1⅝-inch cotton is fully as much as a year ago. Last season's loan rate was based on 95 percent of the parity price (21.08 cents per pound) at the beginning of the season. To this was added 105 points to convert this basic rate applied to Middling ⅝-inch cotton, to the base rate for Middling 1⅝-inch cotton. The consequent loan rate, therefore, for Middling 1⅝-inch cotton at average location was 21.08 cents per pound, gross weight.

This year the loan rate is 92½ percent of the parity price at the beginning of the marketing season of 21.45 cents to which is added 125 points to convert to Middling 1⅝-inch cotton. The base loan rate this season, therefore, for Middling 1⅝-inch cotton at average location is 21.09 cents per pound.

Grade and staple premiums and discounts are those which prevailed in the open market in the early part of the season. This base loan rate for Middling 1⅝-inch cotton compares with a Government purchase price in August of 22.15 cents a pound and a Government sales price of 23.12 cents a pound.

The production of cotton this season is currently estimated at 10,134,000 bales, 17 percent less than in 1944. The 1945 yield is estimated at 269.7 pounds per acre and the area in cultivation on July 1, less 10-year average abandonment, is slightly above 18 million acres, the smallest since 1885.

FARM LABOR

FARM labor supplies for harvest operations this fall are expected to be less than a year ago. In the first 7 months of 1945 the total number of workers on farms averaged 2 percent below last year. Family workers were 1 percent fewer than a year ago, but were doing a larger proportion of the work on farms, while the number of hired workers was down 6 percent despite increases in wage rates.

Cut-backs in production of munitions and other war industries together with discharges from the armed forces so far have had little effect on the farm labor shortage. The industrial labor market is showing slight effects of cut-backs in most areas. Reconversion, movement to other areas, and some withdrawals from the labor force appear to be reabsorbing

most displacements from war industries. It is reasonable to expect that some returning soldiers and some displaced workers will return to farms, but it does not seem likely that much help can be expected from these sources by fall.

Labor supplies for corn harvest in the Corn Belt are expected to be as tight or tighter than a year ago. Through June 30 this year family workers have numbered about the same as last year but hired workers have been 12 percent fewer in this area. However, corn production in the Corn Belt is expected to be below a year ago so that less labor may be required.

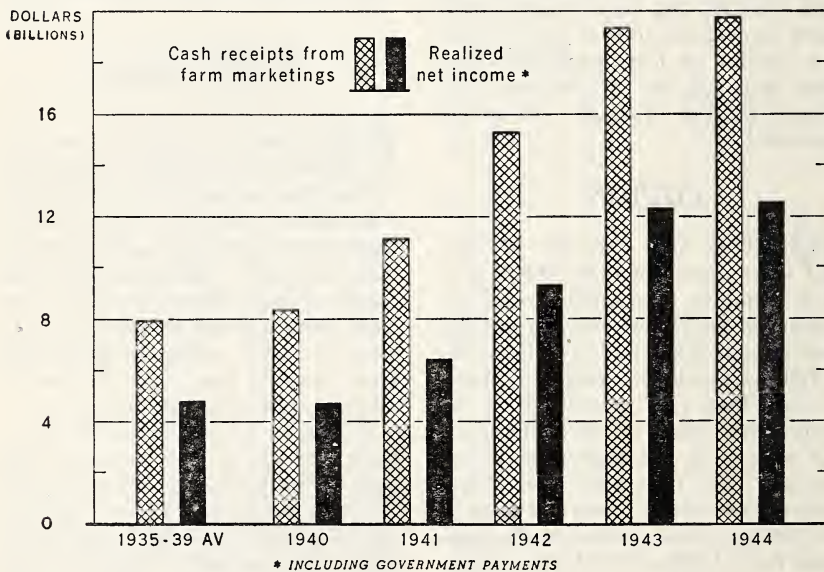
Though total farm employment in the Cotton Belt during the planting and chopping seasons was about 2 percent below a year ago, the supply of

harvest labor, relative to requirements, probably will be no tighter than a year ago because the cotton acreage is down about 10 percent from last year.

A drastic reduction in the commercial apple crop, in all areas except the West, should make it possible to complete the apple harvest with local labor in most areas. Production now in prospect is nearly two-thirds below a year ago in the Eastern States, one-half as large in the Central States but down only slightly in the Western States.

Foreign workers and war prisoners have been supplementing regular sources of farm labor in harvesting truck crops and work in sugar beets so far this season. It is expected that these sources will continue to supplement the domestic labor force for the remainder of the year.

INCOME OF FARM OPERATORS, 1935-39 AVERAGE AND 1940-44



U. S. DEPARTMENT OF AGRICULTURE

NEG 45406 BUREAU OF AGRICULTURAL ECONOMICS

Farm Income During the War

THE RATE of increase in farm income generally is leveling off compared with the rather rapid rise in the early war years. In 1944 cash receipts from farm marketings stood at 19.8 billion dollars, only 2 percent above 1943 and a decided reduction from the rate of increase of 25 percent from 1942 to 1943 and more than 33 percent in each of the two preceding years. Most of the increase in cash receipts over the 1935-39 prewar average of 8 billion dollars occurred during the 3 years, 1941-43.

Increases in realized net income of farm operators from agriculture during the past 4 years closely paralleled the changes in cash receipts. While net income stood at 11.9 billion dollars in 1944 (12.6 billion with Government payments) it was only 200 million dollars more than in 1943. Largely because of marked increases in expenses for livestock purchases, feed, fertilizer, net income in 1940 fell slightly under the 1935-39 prewar average—despite the rise in cash receipts. From 1941 through 1943 the rise in net income was at a slightly faster rate than cash receipts, but the two followed essentially the same pattern—in 1942 and again in 1943 cash receipts increased by about 4 billion dollars while net income rose by about 3 billion in each year. Then, last year saw approximately the same leveling off in the rise of both.

Cash Receipts

All the major groups of crops and livestock products shared—though not equally—in the wartime rise in cash receipts. Among the crop groups, the largest percentage gains between 1935-39 and 1944 were registered by oil-bearing crops, with cash receipts five and one-half times the prewar average—a drop from an even higher level in 1943—and by fruits and feed grains, each with receipts about three times the prewar level. Hogs showed the largest percentage gain among the

livestock and livestock products groups, cash receipts in 1944 totaling about three and one-quarter times the prewar average. Poultry and eggs were next in percentage gains, but dairy products and cattle were responsible, after hogs, for the largest part of the gross increase in dollar volume of sales.

The wartime increase in cash receipts reflected a marked rise in prices of agricultural commodities in addition to a rapid expansion in production from relatively low 1935-39 levels. In 1944, prices of crops were double their prewar average, and prices of livestock and livestock products were up by two-thirds. The volume of farm marketing had increased about one-fourth for crops and nearly one-half for livestock and products.

The wartime increase in cash receipts resulting from higher prices and larger production has not, however, eliminated the wide disparity in farm incomes in different sections of the country. In 1944, for example, cash receipts averaged about \$3,600 per farm for the United States as a whole, but in four States the average was over \$7,500 and in nine States under \$2,000. Disparities within the States were even greater, varying from farms operating at a bare subsistence level to very large business enterprises.

Realized Net Income

Realized net income of farm operators from agriculture represents the net return for their labor, including the unpaid labor of their families, and for their capital and management. Being a *net figure*, over and above operating expenses, it is more meaningful than cash receipts in measuring the income derived from the farm business available to the operator and family for current living and savings. As the table indicates, net income estimates are obtained by adding to cash

receipts from marketings, the value of farm products consumed as food and fuel by the family and laborers on the farm, and the annual rental value of farm residences; and then subtracting from the resulting gross income the production expenses incurred in connection with farm operations. Government payments to farmers are shown as a separate component of net income, in order to distinguish the portion of farm income arising from this source.

Taking the period as a whole—1935–39 through 1944—realized net income increased to more than 2½ times its prewar level. The percentage rise was just about equal to that

in nonagricultural wages and salaries, but exceeded the rate of increase for the nonagricultural private business and professional groups (exclusive of corporations) whose net incomes just about doubled between 1935–39 and 1944.

Crop and Livestock Inventories

A decline of 0.4 billion dollars in farm inventories during 1944, in contrast to an increase of 0.3 billion in 1943, more than offset the slight increase from 1943 to 1944 in realized net income. The inventory item as used here measures the value of the change between the beginning and end of the year in numbers of livestock on farms and in quantities of crops held for

Farm Operators: Cash Receipts, Production Expenses, and Realized Net Income, United States, 1935–39 Average and 1940–44

	1935–39 average	1940	1941	1942	1943	1944
	<i>Bil. Dol.</i>	<i>Bil. Dol.</i>	<i>Bil. Dol.</i>	<i>Bil. Dol.</i>	<i>Bil. Dol.</i>	<i>Bil. Dol.</i>
Cash receipts from farm marketings:						
Crops	3.4	3.5	4.7	6.3	8.0	8.6
Livestock and products	4.6	4.8	6.4	9.0	11.3	11.2
Total cash receipts	8.0	8.3	11.1	15.3	19.3	19.8
Nonmoney income (value of products consumed on farms and gross rental value of farm dwellings)	1.9	1.9	2.1	2.4	2.8	2.9
Gross income from agriculture	9.9	10.2	13.2	17.7	22.1	22.7
Production expenses:						
Feed purchased .....	.7	.8	1.1	1.5	2.1	2.1
Livestock purchased .....	.3	.5	.6	.7	.7	.6
Fertilizer and lime .....	.2	.3	.3	.4	.4	.5
Cost of operating motor vehicles .....	.5	.6	.6	.7	.8	.8
Miscellaneous .....	.8	.8	.9	1.1	1.2	1.2
Total current operating expenses	2.5	3.0	3.5	4.4	5.2	5.2
Hired labor:						
Cash wages .....	.7	.8	1.0	1.3	1.6	1.8
Value of perquisites .....	.2	.2	.2	.3	.3	.3
Total labor expenses .....	.9	1.0	1.2	1.6	1.9	2.1
Maintenance or depreciation	1.0	1.1	1.2	1.3	1.5	1.6
Property taxes .....	.4	.4	.5	.5	.5	.5
Farm mortgage interest ¹ .....	.3	.3	.3	.3	.3	.3
Net rent to nonfarm landlords .....	.4	.4	.6	.9	1.0	1.1
Total expenses	5.5	6.2	7.3	9.0	10.4	10.8
Realized net income from agriculture	4.4	4.0	5.9	8.7	11.7	11.9
Government payments ² .....	.4	.7	.5	.6	.6	.7
Realized net income from agriculture and Government payments	4.8	4.7	6.4	9.3	12.3	12.6
Value of change in farm inventories ³		+1	+3	+8	+3	—4
Net cash available to farm operators after cash expenses ³	2.9	2.8	4.1	7.3	10.1	10.1

¹ Farm mortgage interest declined from 345 million dollars in 1935–39 to 255 million dollars in 1944.

² Payments to farm operators; excludes amounts paid to landlords not living on farms.

³ See text for explanation.

sale. It represents an adjustment for sales out of inventory, as in 1944, or for net additions to inventories from production during the year, as in 1943. The inventory decline for 1944 reflected a sharp drop in livestock numbers—inventories of hogs declining by half a billion dollars between January 1 and December 31—which more than offset an increase in crops stored for sale. The rise in inventories during 1942 and 1943 was due primarily to increases in numbers of cattle and hogs on farms.

Farm Production Expenses

Farm production expenses just about doubled between 1935–39 and 1944, from a 5.6 billion-dollar prewar average to 10.8 billion dollars last year. This huge wartime rise was nevertheless smaller than the rate of increase in cash receipts from marketings, and explains why net income rose faster than cash receipts during the past 4 years.

The major items of production expense varied considerably during the war years, both in degree of change and in direction. For example, expenses for purchased feed and for net rent to nonfarm landlords¹ more than tripled between 1935–39 and 1944. Aggregate farm wages (cash wages plus the value of perquisites furnished to hired labor) more than doubled despite a decline of 13 percent in numbers of hired farm workers. Expenses for fertilizer and livestock purchases also were more than twice prewar levels. On the other hand, the cost of operating motor vehicles and depreciation charges on buildings and equipment were up by only two-thirds. Property taxes remained fairly stable. Farm mortgage interest was down by one-fourth because of a substantial reduction in the farm mortgage debt. Though most expense items showed successive increases each year, excep-

tions occurred in expenses for purchased feed which leveled off after 1943, livestock purchases which reached a peak in 1942, and farm mortgage interest which declined throughout the period.

Decided changes in the relative importance of the various expense items have taken place thus far during the war. For example, feed purchases accounted for less than one-eighth of total farm production expenses in 1935–39 compared with one-fifth in 1943–44, rent to nonfarm landlords increased from 6 to 10 percent of the total, whereas farm mortgage interest dropped from 6 to 2 percent.

Net Cash After Expenses

Net cash available to farm operators represents their cash receipts minus their cash expenses. Cash expenses include the same list of items used in deriving net income, with two exceptions. First, the value of food, lodging, and other perquisites furnished to hired laborers is excluded from expenses since nonmoney income is not taken into account; second, the actual outlays of farmers for buildings and machinery are substituted for the depreciation item used in estimating net income.

Net cash available to farm operators totaled 10 billion dollars in 1943 and again in 1944, as compared with 7 billion in 1942, 4 billion in 1941, and 3 billion in 1940 and the prewar period. Beginning with 1942, this represented a more rapid increase than occurred in either cash receipts or net income. It reflected a sharp drop in purchases of farm machinery and equipment as well as in outlays for farm buildings in 1942 and 1943. In contrast, depreciation charges rose steadily during the war, exceeding the volume of cash outlays for machinery and buildings in 1942–44. Depreciation charges are estimated to approximate the amount that farmers would have to pay each year if they had replaced, at prices prevailing during the year, the amount of equip-

¹ Rent paid to landlords living on farms is not included in production expenses, because though it represents expense to one group of farmers it is income to another group.

ment used up in the year. An excess of purchases over depreciation charges, such as occurred during 1940 and 1941, represents a net addition to the farmer's wealth in the form of various types of farm machinery, whereas an excess of depreciation charges over purchases, as in 1942-44, indicates that farmers have used up a part of their capital invested in equipment.

Because of the durability of farm machinery and buildings and the wide

variation in outlay from year to year, depreciation is better than cash outlay as a measure of the cost of plant and equipment used up in any one year. Net cash available to farm operators is not *net income* because it includes cash outlay rather than depreciation, and because it takes no account of the products furnished for farm family living.

SELMA F. GOLDSMITH
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Transportation Most Critical of War

KEEPING the pipe line filled with supplies to the Pacific theater of war will test the capacities of the railroads, particularly the transcontinental lines, in coming months, as they have never been tried before. With western railroads carrying the major share of military traffic and with these same railroads called upon to handle the greater portion of the grain crops and livestock as well as the fruit and vegetable production of the West Coast, serious delays in moving these crops to markets will be experienced. The longer turn-around time between the loading of a car and its return for another load, because of the distances involved, will have the effect of further reducing the available car supply.

For the first time since the war began, the last year has seen the development of acute shortages of boxcars, particularly the high-class type of equipment required for grain, grain products, and many other types of foodstuffs. On January 1, 1943, the total serviceable boxcars on class I railroads was 735,104 cars. Although 18,783 new cars were delivered in 1944, this number had been reduced to 721,598 by January 1, 1945, and many of these cars were suitable only for rough freight. Shortages of manpower for repair and the rebuilding of cars has made it impossible for the car-

riers to keep their equipment in proper condition. The deterioration has progressed so far that it seems entirely probable that it cannot be remedied before the end of the war, when sufficient men are again available to work in railroad shops, and traffic has subsided to more normal levels that will permit the carriers to relieve cars from service for thorough reconditioning where they are now given only a patch-up job.

No Grain-Boxcar Reserve

Prior to the war, it was the practice of the railroads to build a bank of empty boxcars in the West with which to move grain crops to market as rapidly as possible after harvesting commenced. Because of the unprecedented demands of military and other transportation needs, this is no longer possible.

At the present time, while the number of boxcars on western lines is actually somewhat larger than a year ago, they are busily at work moving old crop grain and the early harvested new crop from country elevators to terminal markets and hauling war freight to ports and military depots in the West instead of standing idle on sidings awaiting the rush of newly harvested grain.

Various expedients have been adopted to augment the supply of cars fit for grain loading. Full trains of

hopper-bottom gondola cars loaded with grain have shuttled from southwestern points to Gulf ports, and the use of gondola cars for short haul grain movements has spread generally throughout the central and eastern parts of the country. Some roads have slatted and lined livestock cars and rebuilt old refrigerator cars for grain loading. The total of these efforts is assisting tremendously in the grain movement, and while the 1945 harvest will not have the car banks of previous years, every effort is being made to handle the crop with the least possible delay.

Reporting machinery has been set up through the Bureau of Agricultural Economics and the Agricultural Adjustment Agency to spot the areas in need of particular attention so the railroads may arrange the distribution of their equipment accordingly. This information includes available storage facilities, production estimates, grain yet to be harvested, and grain on the ground on various dates. Certainly wheat will be stored on the ground, very likely in larger amounts in some States than was the case in previous years. Time will be required to get that grain safely under cover, but the measures being taken are expected to keep the period of exposure to a minimum. Much of the crop will have to remain in bin storage on farms for movement at a later date.

Refrigerator-Car Shortage Acute

A more serious problem lies in the transportation of fresh fruits and vegetables. Refrigerator cars have been wearing out faster than they could be replaced under our restricted car-building program. Railroad companies and private car lines, just before the outbreak of the war, owned a total of 146,319 freight refrigerator cars, some 25,000 less than a decade earlier. By April 1, 1945, the number of refrigerator cars had further declined to 138,410. Of these, the number laid up for repairs has increased substantially in the past year. As a result, there have been repeated and persistent

shortages of cars. These shortages have been aggravated on the Pacific coast by congestion in terminals and because the tonnage of loaded west-bound freight for military purposes has been so heavy that the movement of empty refrigerator cars to the coast area has been retarded.

These difficulties will probably continue until the war in the Pacific has been won and the return of troops and equipment to this country has been completed.

Livestock Will Be Moved

While the marketings of cattle are expected to be considerably heavier in the last half of 1945 than they were last year, the number of hogs to be moved will be less, and while the total volume of shipments will be greater than a year ago, it is not expected that there will be any shortage of livestock equipment, either rail or truck, to handle a normal pattern of movement to market. Some difficulty might be experienced if a heavy nonseasonal movement due to lack of feed caused by drought or some other calamity were to arise. The heavy freight and passenger burden on transcontinental railroads may have a tendency to slow the movement of range cattle and sheep to some extent, but the importance and scarcity of meat products assures that livestock will be moved to market.

Before the war, a large percentage of farm products, particularly fresh fruits and vegetables, poultry, dairy products, and livestock, moved by motor truck, but age and accumulated mileage have taken a heavy toll of this service. The peak of motor-truck transportation of agricultural products was reached in 1941. Since then, the total tonnage moved by all types of carriers has increased, but the percentage handled by trucks has declined and this decrease has had to be absorbed by the rails. Lack of tires, replacement parts, inadequate repair service, and conservation measures designed to lengthen the useful

life of trucks, tires, and parts have contributed to the loss of motor-vehicle tonnage.

Increased allocations of truck tires for civilian use recently announced by the War Production Board were made possible by the end of the war in Europe. However, this does not mean there will be plenty of truck tires from now on. In the first place, experience has shown that synthetic tires do not have the mileage of the prewar tire. Second, the increased allocations may be only temporary, at least partly so. Third, since July 1944, heavy duty tires have been rationed under a priority list, with only the most essential services, including the transportation of perishable foods, being protected by a high priority. Trucks engaged in hauling commodities or in services with lower ratings literally have had no new tires in the last year. Tires have been recapped again and again, but the supply of recappable carcasses has just about run out, and many thousands of trucks that have been transporting less essential, but nevertheless important, traffic eventually will have to have some relief.

The picture on farm trucks appears a little brighter, particularly for light and medium vehicles. More trucks in these categories are scheduled for production during the third and fourth quarters of 1945, and in addition surplus trucks will be available for sale in farm areas where needed.

Coastwise and intercoastal shipping was heretofore an exceedingly important part of the Nation's transportation system. But during the war, this type of shipping had to be discontinued, because of the tremendous need for ocean shipping for overseas movement and necessity for convoy due to the submarine menace.

Some think that it should be possible to release some of that shipping now, but, with much greater ocean distances now to be traveled, relief through the resumption of coastwise and intercoastal traffic is an impossibility at this time.

Lack of sufficient manpower to adequately operate the transportation facilities has been a major factor in the problem. Only recently the Army announced that 4,000 experienced railroad men would be furloughed to the railroads to help relieve the situation. And some further relief may come if a sufficient number of laid-off war workers heed the President's recent request to work for the railroads. The War Manpower Commission now gives railroad workers top priority for military deferment.

In spite of all the difficulties that lie ahead, the basic crops, except for some fruits and vegetables, will be moved to market although in some cases they may not be handled as promptly as might be desired.

EDGAR B. BLACK, *Office of Transportation* and J. C. WINTER, *Office of Marketing Services*

Lumber for Farm Construction

FARM construction, one of the largest users of lumber, accounted for about 30 percent of total consumption a generation ago. It has dropped since then, but normally still takes about 16 percent and probably will continue to do so when peace comes.

Ninety-five percent of farm houses are lumber and the same percentage

would hold for other farm buildings if logs and poles are included. Lumber and other forms of wood construction have been low in cost, are easy to use, and have always been readily available in peace times.

Prior to World War II the only lumber shortage was during and immediately following World War I. That shortage was relieved after

peacetime readjustment in spite of the building boom which followed 1920.

War Demands Different This Time

World War II has brought with it another wartime shortage, but there is no certainty this time that the shortage will disappear with reconversion. When heavy military demands of 1942 developed a shortage of other materials, lumber was looked to as an available substitute, but by 1945 the shortage of lumber became so acute it was rated one of the most critical materials. The last war required some 6 billion board feet of lumber, but this one has taken over 60 billion and is still taking lumber at the rate of 1½ billion board feet per month.

Because of military needs, farm construction, along with other civilian construction, is down to a depression low even though farm production has been maintained at all time peaks. Some critical situations, such as the inadequate grain storage capacity, are cause for strong complaints, but generally complaints are not as insistent after nearly 3 years of shortage as they were at the start. The explanation is not that farms do not need the lumber, but with labor shortage, and all the other difficulties in the way of doing construction, there is more disposition to wait. Fortunately much construc-

tion, both new and maintenance, can be deferred when conditions are unfavorable. That is one reason why the swings in construction are so extreme from bottoms to peaks of the construction cycles.

There was some expectation that a one-front war would mean more lumber for civilian uses, but this has not happened. Military requirements have not eased, and the public has been advised not to expect them to ease so long as war against Japan continues. At the same time production for the first 4 months of 1945 is 10 percent below the same period in 1944, which indicates a shorter 1945 supply. After 2 years of wartime restrictions, farmers know pretty well what the situation is as it affects them and they can assume that there will be no significant change in the lumber supply while the war continues.

Long-Standing Construction Backlog

The longer the war continues, the more the deferred construction builds up. There was no appreciable build up during World War I, but deflation of agriculture after that war kept farm construction below normal for most of the 1920's. This was followed by the depression of the 1930's, with farm construction not reaching normal until 1939 and 1940. It has again been below normal since 1942. Expenditures for farm building mainte-

Estimates of Lumber Requirements—Prewar and Postwar

	Prewar			1945	Peace years			
	1928	1932	1940		First	Second	Third	Fourth
	<i>Billion board feet</i>	<i>Billion board feet</i>	<i>Billion board feet</i>	<i>Billion board feet</i>	<i>Billion board feet</i>	<i>Billion board feet</i>	<i>Billion board feet</i>	<i>Billion board feet</i>
Residential.....	10.8	2.1	8.6	1.4	3.5	7.0	9.5	10.5
Farm.....	6.2	2.2	5.5	2.2	3.7	5.4	6.4	6.7
Other construction.....	12.1	6.5	9.9	8.2	8.6	10.6	11.7	12.1
Total construction.....	29.1	10.8	24.0	11.8	15.8	23.0	27.6	29.3
Factory.....	4.4	1.7	3.0	3.5	3.7	3.9	4.0	4.1
Box crating.....	5.9	2.8	4.3	14.9	8.0	5.5	5.5	5.5
Total domestic.....	39.4	15.3	31.3	30.2	27.5	32.4	37.1	38.9

nance for the past two decades were about 1½ billion dollars below depreciation, making no allowance for improved building standards.

The rural electrification program has gone far toward bringing electricity to the farmer, but in other respects farm construction has not kept pace with modernizing of urban structures. The situation is usually emphasized by comparison of farm housing with urban housing as to sanitary facilities, equipment, state of repair, and overcrowding. Shelter for animals is equally in need of modernizing.

At the present time the agricultural balance sheet is the best it has ever been. Farm assets are valued at 90.8 billion dollars January 1, 1945, compared with about 53.8 billion dollars January 1, 1940. At the same time real estate mortgages actually dropped from 6.6 billion to 5.3 billion dollars. Particularly significant as related to postwar expenditures for farm improvements is a 16 billion dollar liquid reserve—war bonds, cash, bank deposits, and warehouse receipts.

Postwar Outlook Better than Prewar

Agriculture is faced with a downward readjustment from the current 24-billion-dollar level of gross income. However, if postwar farm income should hold at about 18 billion dollars which would be well above prewar, expenditures for farm construction and similar improvements should be in the neighborhood of a billion dollars a year. And this would be higher than the 20 years prior to World War II.

Industrial reconversion will be expedited as much as possible with the prospect that following reconversion the country will experience a period of prosperity as it did following previous wars. Such prosperity includes a boom in residential construction which, like farm construction, is a large user of lumber.

No one can foretell what the situation will really be, either the magnitude of the construction boom or the

timing. The prospects, however, are for a boom comparable to that of the twenties. Without a break in recovery, such as that of 1921, it should require several years to reach the peak.

Stocks Badly Depleted

Lumber stocks have had to be drawn on heavily to meet wartime needs and total stocks of both producers and distributors dropped from 17.3 billion board feet on December 31, 1941, to 6.5 billion on December 31, 1944. These stocks will have to be built up during recovery in order to effectively meet peacetime demands. That is, postwar production will have to provide for stocks in addition to actual consumption. Currently, exports and imports are in approximate balance but with the tremendous reconstruction to be done in the war-torn countries exports would be expected to exceed imports and the difference would have to be met by excess of production over domestic consumption.

On this basis a production of 32.5 billion board feet might take care of the first peace year of domestic consumption, export 2 billion, and put 3 billion board feet back into stocks. Present production is down to about 30 billion board feet annually, primarily because of labor and equipment shortages. Production of 32.5 billion should not be difficult for the first peace year. However, with stocks as low as they are, particularly country yard stocks on which the farmer depends, there will probably be a tight lumber situation until distributors build up working stocks of dry lumber. That was true after the other war and the conditions would appear worse this time, but it is only a temporary difficulty.

The longer view is more uncertain. Should requirements build up to 40 billion board feet, possibly more, depending upon whether residential construction reaches the high levels frequently predicted, and whether exports are much in excess of prewar,

there is serious question of the industry's ability to produce that much lumber. It is very doubtful whether domestic lumber production will much exceed 32 or 33 billion board feet per year. War has made a heavy drain on the forests. Some large operators who have been overcutting to supply emergency needs should reduce their cut to a sustained yield basis. Some small operators who do not own timber and have been clean-cutting scattered small tracts may have difficulty after the war. Results of poor management of timber resources over these many years may hit harder than expected if the industry is asked to meet 40 billion board feet lumber requirements.

Farmer—Consumer and Producer

The farmer is on both sides of the problem. He is concerned about supply because lumber is his best general-purpose construction material and is low in costs when adequate to meet demand. He is also responsible for his share of poor forest-land management in the past which may be the primary cause of a current tight lumber supply and higher prices. Approximately a third of the Nation's

forest-land acreage is held by farmers. A considerable part of lumber used on farms does come from farm timber, but the timber has been pretty much a gift of nature without the help of good woodland management, and represents less than half the timber crop the lands should be producing. Good management would more than double the financial return from most farm woodlands, and would also provide best assurance against high farm construction costs for the farms with woodlands.

How much shortage of lumber would curtail farm construction is difficult to say. There are other materials competing with lumber. But the ability of lumber to hold its own in the past is evidence that forced use of other materials would meet some resistance at least. And displacement of lumber by other materials in farm construction would represent displacement of a farm product by a nonfarm product at a time when recognition is being given to the need for farm crops with outlets other than as food and clothing.

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Seasonality of Wartime Milk Production

Seasonal variation in milk production is a perpetual problem of the dairy industry. Late spring and early summer is the natural season of heavy milk flow. A concentration of freshenings in spring months centers the high point of the lactation curve of a sizable proportion of the milk cows, on May and June. Abundant green feed in pastures at this time further stimulates high output. And, too, low costs of producing milk from grass encourages a late spring and early summer production on those farms where dairying is only a sideline. The level of milk production at this flush season averages

about 1½ times that of the late fall and early winter months and in some areas is fully twice as much.

In contrast, seasonal variation in consumption of milk and dairy products is comparatively small. The wide gap between varying supply and uniform consumption is bridged in the marketing and distribution operations of the dairy industry. Through storage of manufactured dairy products, the bulk of the surplus supplies is carried over for winter consumption. The expense of this service, while normally borne largely by the consumer, tends to cause producer prices to be

lower in the surplus season and higher in times of deficit production, thus providing farmers an incentive to work toward more even seasonal distribution of supply.

War Brings New Influences

Seasonal price variations have narrowed markedly under influence of uniform year around ceilings during the war, and the burden of carrying surplus supplies over to the deficit season has shifted largely into Government hands. On the other hand, seasonal differentials in Government incentive payments to producers for milk and butterfat have restored some seasonality into unit returns received by farmers. In appraising postwar marketing readjustments, it is important to know whether these factors have accentuated seasonal production changes, thus magnifying difficulties associated with this problem.

In order to gauge changes in seasonality, daily milk production in each month has been computed as a percentage of the average for the year. To eliminate trends caused by sizable year-to-year changes in level of production, each month has been compared with the 12-month period on which it centers. In 5 months of the year—April, May, June, July, and August—United States daily milk production is above average for the year as a whole. In May and June, the months of heaviest production, the daily rate is about one-fourth higher than the average for the year. In the 7-month period from September through March, milk production per day is below the annual rate, with the low point usually reached in November or December at a level approximately 15 percent below that of the year as a whole.

Milk marketing and supply problems come most frequently and are most acute at the peak and low points of the seasonal production curve. Large surpluses of milk during the flush season cause serious pricing problems especially in fluid markets where diversion of excess milk to

manufacturing outlets materially lowers prices to producers. During recent war years, a heavy volume in the flush season has also taxed facilities of many dairy plants. At the low point of the production curve, problems center on obtaining sufficient supplies to meet current consumption needs such as the fall of 1943 when an acute fluid milk shortage in the East almost caused a serious distribution break-down.

For comparisons of flush season and off season production with the year as a whole, a 2-month period appears to be the most appropriate time unit. Peak production is nearly always reached in June, but the relationship of that month to the remainder of the year may be materially influenced by the exact timing of the seasonal high point which usually comes in the early part of the month. Thus a low production in June often is accompanied by high production in May and a combination of the two is more representative of the general level of flush production than either one alone. At the other extreme of the seasonal curve, November and December usually have about equally low daily production, so, considered together, they cover the most critical deficit period.

Peaks Comparatively Stable

The relationship of production in these high and low 2-month periods to that for the year as a whole during the past decade and a half are shown in the accompanying chart. From 1931 through 1934, peak season production was relatively lower and off season production relatively higher than in the past 10 years. From 1935 to date the relationship of May-June production to the year as a whole has been remarkably stable, with variations of only about 2 percent during the period, but has shaded slightly downward rather than upward during the war. The 2-month period of low production, on the other hand, has varied appreciably in relation to the yearly average. In the 1934-37 drought period, fluctuations were irregular with a sharp bulge

in 1936 when unusually heavy late fall production was preceded by a dry summer and followed by a winter of short feed supplies.

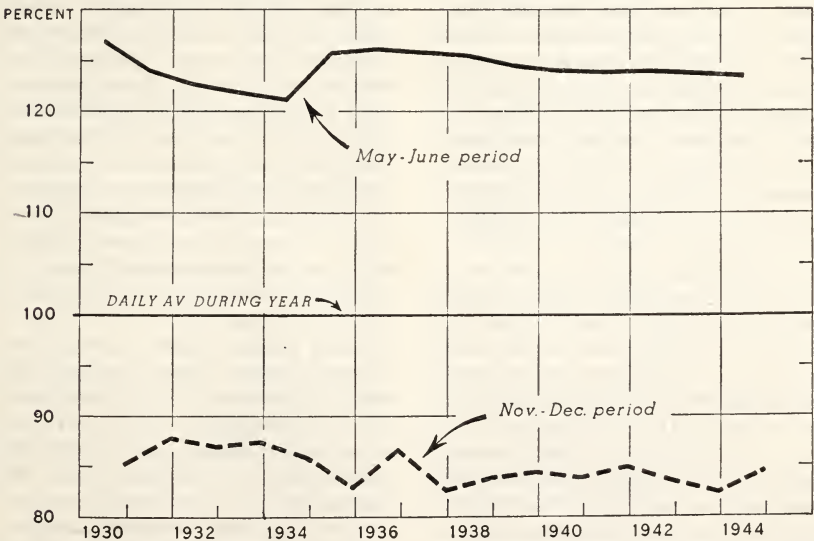
During the first 2 years of war, a trend toward light November-December production appeared to be developing. In 1943, failure of dairy product prices to rise as fast as feed prices, prospects of insufficient feed to provide for all livestock on farms, and a tightening of the farm labor supply during the harvest season, all exerted influences toward low late fall milk production. To counteract these unfavorable conditions, the Government launched a program of production incentive payments direct to farmers selling dairy products. Although begun in October 1943, the payments did not become firmly established on a year around basis until the early months of 1944. By the late fall of that year, milk production had recovered to the point where production in the November-December period showed about the same relationship to yearly production as in prewar years. The effect of the dairy payment pro-

gram became discernible rather gradually since farmers needed time to adjust their dairy operations to the new basis, and the full weight of the program on production apparently did not come until the late fall of 1944. Seasonal payment differentials established for that fall and winter season were also a favorable influence toward regaining normal production levels.

With the monthly pattern of milk production in 1944 holding closely to that of prewar years insofar as peak and deficit periods are concerned, such added problems of coordinating production and consumption seasonally in the postwar adjustment period seem likely to hinge on utilization of milk in different consumption channels. Considering current high levels of milk production and sharp wartime shifts in milk use, many areas will no doubt find the burdens of readjusting to a peacetime basis severe even though seasonality of production has not been appreciably increased during the past several years.

JOHN L. WILSON
Bureau of Agricultural Economics

MILK PRODUCTION: PEAK AND LOW PERIODS AS PERCENTAGE OF CENTERED YEARLY AVERAGE, UNITED STATES, 1930-44



Surplus Medical Equipment for Rural Areas

MANY farmers throughout the country are conscious of the need for improving rural medical and health facilities and services. They are not only thinking of improving the hospitals and health centers they already have or of building new ones where there are none, but also of finding better ways to pay the hospital and doctor bills.

Of the farmers interviewed in a recent study by the Bureau of Agricultural Economics more than four-fifths said they would like to see an increase of public clinics in rural areas after the war and three-fourths said they would like to subscribe to some flat rate prepayment plan for themselves and their families to cover the costs of doctors' and nurses' services as well as hospital bills.

Improved Service at Less Cost

Farm people will have an opportunity to fulfill these desires to improve hospitals and health centers now in operation or to lower the cost of building new ones, if they take advantage of the surplus hospital and medical equipment that will be available in large quantities after the defeat of Japan. There will be plenty of most kinds available to rural communities at little cost, such as surgical instruments, bedding and beds, dishes, X-rays, incubators, diagnostic and sterilizing equipment, furniture, mobile medical and dental units, operating tables, and everything else hospitals and health centers use.

Consideration is being given to a scheme of packaging this surplus medical equipment as a means of simplifying buying for rural communities. A package for instance might consist of everything needed for the equipment of a health center to serve a community of 5,000 people. Another might include the essentials for a smaller community. Such "kits" might not only include surplus medical equipment and supplies, but also other

surplus materials and fixtures needed for the erection and furnishing of appropriate hospital or health center buildings. The prices or lease rates quoted would apply to the unit as a whole. Consideration is also being given to the needs of selling the equipment in small lots to health associations, co-ops, State, county, and city health departments.

In addition to community hospitals or health centers, other groups will find use for surplus medical supplies and equipment. State, county, and city health departments and schools that give periodic health examinations to school children or who may want to bring medical service to isolated farm areas might find good use for mobile medical and dental units. And small community services like fire and police departments, as well as other public offices which have a health function, could well use ambulances, oxygen tents, and water-purification devices.

How to Obtain Equipment

What must a community, a hospital, or farm organization do if they want to get some of this equipment for a hospital or for their public health office, school, or fire department, or whatever local group or public agency that has need for it? If they already have a hospital or health center they should get a good idea of how much they will need and just how they are going to use the additional equipment. If they want it for their school system, or local agency like the public health office, or police department, they will still need to know how much and how they plan to use it.

Most country doctors cannot individually afford to get modern diagnostic equipment like X-rays and electrocardiographs. But small communities, by organizing now, will be able to obtain such equipment for the cooperative use of all the doctors of a community. Other communities may be looking forward to getting only the

simplest equipment, such as beds, examining tables, and good lights. And those communities without a health center, hospital, or even an emergency health room, might make plans to obtain this type of equipment after they have arranged for a place to use it. Until a better place could be found they might at least locate in any building or room with heat and hot water. The room could be open to any doctor in the community and could be used for emergency cases, children, and farm clinics. Any community desiring to work out this much of their plan should consult with their county or State health department and the doctors of the community whose support they will need and want.

First step for a community wishing to take advantage of surplus medical and hospital equipment is to request

its State Health Department to help it establish proof of need, determine the kind and amount of material needed, and establish an organization able to qualify as a purchaser under the Surplus Property Act.

All surplus medical and hospital material will be distributed to communities and groups on the basis of need. Under consideration now is a priority set-up for three classes of communities or groups, as follows: (1) those with no facilities at the present time, (2) those with inadequate facilities to meet present needs, and (3) those needing replacements to maintain or improve present services. The State Health Department would certify need and determine the priority of a given community or group.

GUS LARSON

Bureau of Agricultural Economics

Trends in Grape Production and Utilization

THE GRAPE is the second most important deciduous fruit crop, normally being exceeded only by commercial apples in total tonnage. And some years the grape crop is larger than apples. This year, for example, the apple crop is a record low, with prospects on July 1 indicating a grape production nearly two-thirds greater than commercial apples. The farm value of the grape crop last year was in excess of \$200,000,000, an all-time high and over four times the value in most prewar years.

Cultivation of grapes pre-dates the Pyramids, with wine making the first important use. Important in the development of grape culture was the fact that the fermentation of grape juice with added preservatives such as pitch, resins and spices made possible preservation and storage at a time when means of preservation were very limited.

Early American colonists tried to

grow European type grapes in the Atlantic States but were generally unsuccessful because this type did not withstand the cold temperatures in the North or disease and insects in the South. The Spaniards introduced European grapes to Mexico and the West, and were particularly successful in the coastal areas and interior valleys of California. The mission fathers did much to spread viticulture in California, with the first widespread use of grapes there for wine making.

When the Eastern colonists found that European grapes were not suited to their sections, they started selecting and cultivating native wild types. And a number of high quality varieties have been developed, with Concord the most outstanding. In each section of the country some of these varieties have been successful, and have provided grapes for the areas not suitable for growing European varieties; namely, all States except

the three Pacific Coast States and southern Arizona.

Production Doubled

Total production capacity of the Nation's vineyards more than doubled from the turn of the century until the mid-1920's and production has continued at about 2½ million tons up to the present time. From the mid-20's until the late 30's prices for grapes and grape products were relatively low and not conducive to further expansion of acreage and production capacity remained about steady. During the war years (1942-44) prices received by growers have averaged about three times those of the 1925-39 period. Since 1924 the price received by producers varied from a low of \$13.40 per ton in 1932 to a high of \$79.70 in 1944.

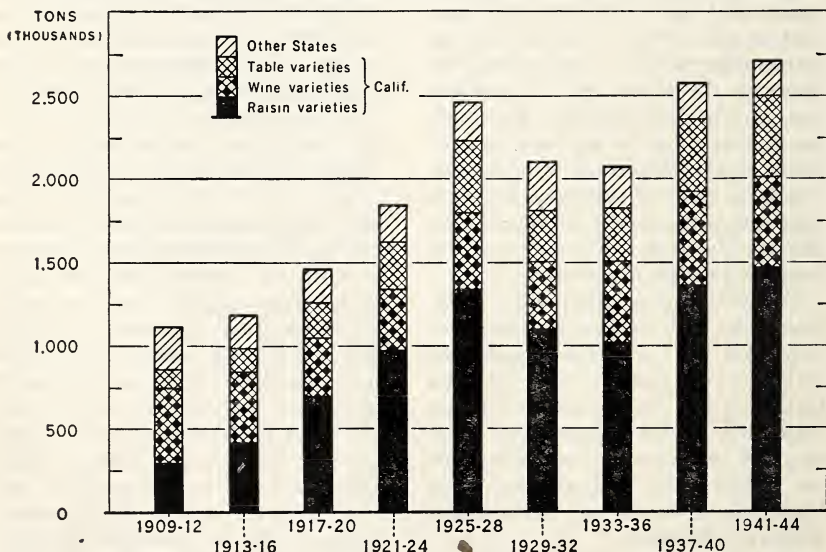
Grapes are grown successfully in every State in the country but the bulk of the commercial production comes from the Pacific Coast States, the Great Lake States of New York, Pennsylvania, Ohio and Michigan and from northwest Arkansas. Dur-

ing the early part of the century, California production averaged about 80 percent of the total crop. The proportion has increased and since 1940 the California crop has amounted to more than 90 percent of the total production.

The California acreage about doubled between 1919 and the mid-1920's, decreased about a fourth in the next 10 years, but increased slightly since. In 1945, California had 494,000 acres of vineyards in bearing. Between the early 1930's and the early 1940's per acre yields in California have increased about 50 percent. This is the result of abandonment of low yielding acreage in the 30's and better care, stimulated by more favorable prices the past few years.

Total production in the four Great Lakes States of New York, Pennsylvania, Ohio, and Michigan has averaged about 6 percent of the national output. Combined production capacity of these four States declined from 1909 to the end of World War I, then increased to the early thirties and is

GRAPE PRODUCTION, UNITED STATES, 4-YEAR AVERAGES, 1909-44



now about two-thirds the peak reached then.

Capacity in Washington, where both European and American types are important, has increased steadily since 1909. At that time production was less than a thousand tons but in 1944 was nearly 18,000 tons—a record for the State. Arkansas was relatively unimportant as a grape area until the mid-1920's when production increased as a result of a greatly expanded acreage for the commercial production of grape juice. Prior to 1924 production averaged only about 1,500 tons, but increased to an average of 12,000 tons from 1928–37 and has averaged 8,000 tons since 1938.

Bulk of Crop Processed

Grapes are utilized in the processed form more than most fruit crops. More than four-fifths of the 1944 production of 2.7 million tons was processed compared with about one-third of peaches and pears and a fourth of the commercial apple crop. Of the fruits less widely grown commercially about two-thirds of the 1944 cherry crop, a tenth of the plums, nearly nine-tenths of the prunes, and about four-fifths of the apricots were utilized as dried, canned, frozen, or in some other processed form.

Most of the grapes processed are grown in California, although important quantities of grapes produced in the Great Lakes States, Arkansas, and the State of Washington are used for juice, wine, and jelly. In these States increasing quantities of grapes have been processed during the past 10 years while the amount sold to consumers as fresh fruit has declined.

California, which produces about 95 percent of the United States grapes for processing, produces all the country's raisins and nearly nine-tenths of the grapes crushed for wine, brandy, and juice. Small quantities of grapes (14,000 tons in 1944) have been canned in California since about 1909. Practically all canned grapes are of the Thompson Seedless variety and are

used in mixes for canned fruit salad and fruit cocktail.

The raisin varieties, which have accounted for slightly more than one-half of California's total grape crop the past 20 years, are suitable for drying, crushing, and fresh table grapes. The table varieties, in most years about a fifth of the crop, have alternative uses as fresh grapes and as crushings for wine, brandy, and juice. The wine varieties, which included about two-fifths of the California production 27 years ago and about one-fifth in most recent years, are limited largely to crushing.

More for Raisins than Wine

In most years larger quantities of California grapes are dried than are crushed for wine, brandy, and juice, especially the last 3 years when Government programs increased the proportion of the crop made into raisins. Over half of California's total grape harvest was dried in 1943 and nearly half of the 1944 crop. Thompson Seedless, Muscats, and Sultanas, are principal raisin varieties. These varieties have been used extensively for both fresh consumption and crushing, as well as raisins. During the preprohibition period, prior to 1921, very few raisin grapes were used for either fresh consumption or crushing and the quantities crushed were not important until after repeal.

During the 11-year period (1909–19), prior to prohibition, California crushed an annual average of about 400,000 tons of all types of grapes for wine, brandy, and juice. During the 13 years of prohibition (1920–32) the average annual crush in California was only 85,000 tons and during the 12-year period since repeal the crush has averaged 766,000 tons. However, during the prohibition years larger quantities of grapes were shipped out of California and a considerable proportion of this tonnage was crushed in other States.

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Economic Trends Affecting Agriculture

Year and month	Industrial production (1935-39 = 100) ¹	Income of industrial workers (1935-39 = 100) ²	1910-14=100				Index of prices received by farmers (August 1909-July 1914=100)			
			Whole-sale prices of all commodities ³	Prices paid by farmers		Farm wage rates	Livestock and products			
				Com-modities	Com-modities interest and taxes		Dairy products	Poul-try and eggs	Meat ani-mals	All live-stock
1910-14 average.....	58	50	100	100	100	100	100	101	101	101
1915-19 average.....	72	90	158	151	150	148	148	154	163	158
1920-24 average.....	75	122	160	161	173	178	159	163	123	142
1925-29 average.....	98	129	143	155	168	179	160	155	148	154
1930-34 average.....	74	78	107	122	135	115	105	94	85	93
1935-39 average.....	100	100	118	125	128	118	119	109	119	117
1940-44 average.....	192	234	139	150	148	212	162	146	171	164
1941.....	162	169	127	131	132	154	139	121	146	140
1942.....	199	241	144	152	150	201	162	151	188	173
1943.....	239	318	151	167	162	264	193	190	209	200
1944.....	235	325	152	176	170	315	198	174	200	194
1944-July.....	231	320	152	176	170	328	194	165	197	190
August.....	232	324	152	176	170	-----	196	171	201	194
September.....	231	320	152	176	170	-----	198	179	200	196
October.....	232	320	152	176	170	325	201	190	201	199
November.....	232	318	152	177	171	-----	203	207	200	202
December.....	232	322	153	178	171	-----	203	211	198	202
1945-January.....	234	322	153	179	172	324	202	199	203	202
February.....	236	320	154	179	172	-----	200	183	209	201
March.....	235	318	154	180	173	-----	198	175	211	200
April.....	230	310	154	180	173	335	194	176	215	201
May.....	226	299	155	180	173	-----	192	179	217	202
June.....	222	-----	155	180	173	340	191	189	216	203
July.....	-----	-----	-----	180	173	362	192	197	215	205

Year and month	Index of prices received by farmers (August 1909-July 1914=100)								Parity ratio ⁵
	Crops							All crops and live-stock	
	Food grains	Feed grains and hay	Tobacco	Cotton	Oil bearing crops	Fruit	Truck crops		
1910-14 average.....	100	101	102	96	98	99	-----	99	100
1915-19 average.....	193	164	187	168	187	125		168	162
1920-24 average.....	147	126	192	189	149	148	\$ 143	160	151
1925-29 average.....	140	119	172	145	129	141	140	143	149
1930-34 average.....	70	76	119	74	72	94	106	86	90
1935-39 average.....	94	95	175	83	106	83	102	97	107
1940-44 average.....	123	119	245	131	159	133	172	143	154
1941.....	97	89	159	107	130	85	129	106	124
1942.....	120	111	252	149	172	114	163	142	159
1943.....	148	147	325	160	190	179	245	183	192
1944.....	165	166	354	164	209	215	212	194	195
1944-July.....	161	168	350	164	209	230	195	194	192
August.....	156	166	355	162	209	214	186	191	193
September.....	155	162	358	170	207	206	166	188	192
October.....	164	161	357	171	211	205	153	187	194
November.....	165	157	368	168	215	195	188	189	196
December.....	167	160	364	168	215	206	228	196	200
1945-January.....	169	163	365	163	214	205	262	200	201
February.....	169	164	360	161	215	211	223	197	199
March.....	171	166	359	163	215	211	203	196	198
April.....	172	162	362	163	215	221	259	204	203
May.....	172	161	363	165	216	227	193	198	200
June.....	173	162	364	169	217	237	209	210	206
July.....	169	161	364	171	221	237	244	207	206

¹ Federal Reserve Board, adjusted for seasonal variation, revised November 1943.

² Total income, adjusted for seasonal variation, revised February 1945.

³ Bureau of Labor Statistics.

⁴ Revised.

⁵ Ratio of prices received by farmers to prices paid, interest, and taxes. ⁶ 1924 only.

NOTE.—The index numbers of industrial production and of industrial workers' income, shown above, are not comparable in several respects. The production index includes only mining and manufacturing; the income index also includes transportation. The production index is intended to measure volume, whereas the income index is affected by wage rates as well as by time worked. There is usually a time lag between changes in volume of production and workers' income since output can be increased or decreased to some extent without much change in the number of workers.